This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.



(1) Publication number:

0 283 240 A3

12

EUROPEAN PATENT APPLICATION

(2) Application number: 88302237.8

(5) Int. Cl.4: F 01 N 3/02

2 Date of filing: 15.03.88

(30) Priority: 20.03.87 JP 66410/87 20.03.87 JP 66411/87 20.08.87 JP 206702/87

- (43) Date of publication of application: 21.09.88 Bulletin 88/38
- 84 Designated Contracting States: DE FR GB
- Balletin 89/04

 Date of deferred publication of search report:
 25.01.89 Bulletin 89/04
- (7) Applicant: Matsushita Electric Industrial Co., Ltd. 1006, Oaza Kadoma Kadoma-shi Osaka-fu, 571 (JP)
- 72 Inventor: Kusuda, Takao 7-32 Higashiyamacho Ashiya-shi (JP)

Yonemura, Masaaki 8-56 Chiyogaoka-2-chome Nara-shi (JP)

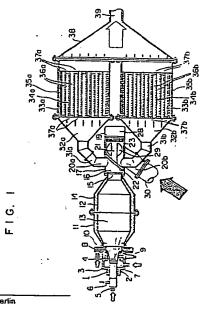
Shimoda, Hisanori 18-1-906 Yamadahigashi-3-chome Suita-shi (JP)

Takigawa, Masuo 1658-268 Kitatawaracho Ikoma-shi (JP)

Mihara, Toshihiro 18-2 Sugiyamate-1-chome Hirakata-shi (JP)

Representative: Woodin, Anthony John et al Fitzpatricks Europe House Box No. 88 World Trade Center East Smithfield London E1 9AA (GB)

- (54) A purifier of diesel particulates in exhaust gas.
- (57) Provided is a regeneration system of an exhaust gas filtering element for diesel particulates. The system comprises two filter elements (34a, 34b) provided in parallel with each other, a burner mechanism (1), and a four-way valve mechanism (16) for switching over an exhaust gas flow and a preheated gas flow obtained by combustion in the burner mechanism (1). The exhaust gas flow is generally passed uniformly through the two filter elements (34a, 34b) which filter off particulates. However, when regeneration is required, an elliptical vane (22) provided in a cylinder (17) of the four-way valve mechanism (16) is rotated so as to cut off the exhaust gas flow passing through one of the filter elements and cause the preheated gas to flow through this filter, whereby particulates are oxidized and inclnerated. At this time, the exhaust gas flow is passed through the other filter element, without any particulates being emitted into the atmosphere. Then, the exhaust gas flow and the preheated gas flow are switched by rotating the vane (22) so that the other filter element is regenerated.



EP 88 30 2237

	DOCUMENTS CONS	SIDERED TO BE RELEVA		EP 88 30 22 1
Category		indication, where appropriate,		<u> </u>
Category	of relevant	passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
	PATENT ABSTRACTS 0 29 (M-451)[2086], JP-A-60 184 917 (H K.K.) 20-09-1985 * Abstract; figure		1	F 01 N 3/02
A	IDEM.		5-7	
Х	US-A-4 373 330 (S * Column 2, lines 66 - column 6, line	23-63: column 5 line	1,4	
A		e so; figure 1 *	7	
	US-A-4 381 643 (S * Column 3, line 69 22; column 6, line 54; figure 2 *	TARK) 5 - column 4, line 40 - column 7, line	1,4	
Α			5-7	
	FUR ENERGIETECHNIK VERBRENNUNGSMOTOREI	N mbH)	1,4	TECHNICAL FIELDS SEARCHED (Int. Cl.4)
A	* Page 7, middle - figures 1-5 *	page 9, middle;	2	F 01 N F 16 K
Į.	DE-U-8 701 816 (MAN TECHNOLOGIE GmbH) * Page 3, middle - page 4, bottom; figures 1,2 *		1	
A,P			2	
A	EP-A-0 207 446 (ISUZU) * Column 3, lines 23-38; figure 1 * /-		1,5,6	
	The present search report has b	een drawn up for all claims	1	
	Place of search	Date of completion of the search	1	Examiner
THE	THE HAGUE 20-10-		FRIDE	EN C.M.
X : partic Y : partic docur A : techn O : non-y	ATEGORY OF CITED DOCUME cularly relevant if taken alone cularly relevant if combined with an nent of the same category ological background written disclosure nediate document	E : earlier patent de	ocument, but publis late in the application for other reasons	hed on, or

EPO FORM 1503 03.82 (PO401)



EUROPEAN SEARCH REPORT

Application Number

EP 88 30 2237

	DOCUMENTS CONSI	DERED TO BE RELEVAN	T		
Category		ndication, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)	
Α	EP-A-0 087 067 (MA * Paragraph 2 *	TSUSHITA)	7		
Α	EP-A-0 121 445 (NG * Page 1, lines 1-9 page 10, line 11 *	K INSULATORS LTD); page 9, line 27 -	7		
Α	FR-A- 958 836 (LI * Whole document *	NDHOLM)	2		
Α	FR-A-2 300 277 (CA	SEM)			
		•			
		•		TECHNICAL FIELDS SEARCHED (Int. Cl.4)	
ı 					
*					
				·	
	The present search report has l	been drawn up for all claims	-		
Place of search Date of completion of the search		FDI	Examiner DEN C.M.		
THE HAGUE 20-10-1988					
Y: par do A: tec O: no	CATEGORY OF CITED DOCUME ricularly relevant if taken alone ricularly relevant if combined with an cument of the same category thnological background n-written disclosure crmediate document	E : earlier patent of after the filing nother D : document cite L : document cited	cited in the application atted for other reasons the same patent family, corresponding		